

**THE IDENTITY OF *DORYLOZELUS MJOBERGI* FOREL
(HYMENOPTERA: FORMICIDAE)**

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THE IDENTITY OF *DORYLOZELUS MJOBERGI* FOREL (HYMENOPTERA: FORMICIDAE)

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Abstract

Dorylozelus Forel, 1915, is synonymized under *Leptogenys* Roger, 1861. *Dorylozelus mjobergi*, the type and only known species, is renamed *Leptogenys tricola*, due to the secondary homonymy of *mjobergi* by assignment to *Leptogenys*. The unique holotype is described and illustrated.

INTRODUCTION

Apart from a brief statement by Brown (1960) there has been little published comment regarding the enigmatic ant *Dorylozelus mjobergi*† Forel, 1915; yet this species has been the subject of much speculation among myrmecologists. The generic and specific descriptions were based on a unique worker specimen collected for the Swedish Museum of Natural History, Stockholm, during the 1910-1913 Australian expeditions of Dr. Eric Mjöberg, and labelled Blackal (sic!) Range, Queensland. The place of holotype deposition was not indicated by Forel either at the time of original description or subsequently, and has remained a mystery, despite searches for the specimen in the Swedish Museum of Natural History, the Forel collection at the Muséum d'Histoire Naturelle, Geneva, and various Australian collections. Several collectors (including W. L. Brown Jr., T. Greaves, the P. J. Darlington family, and the author) have visited the type locality specifically seeking *Dorylozelus*, but without success. Forel's description (which can now be demonstrated as highly inaccurate and misleading) seemingly gave account of an ant so unusual that a monotypic tribe in subfamily Ponerinae was required for its satisfactory classification. Thus, in the absence of reference specimens the species has proved very perplexing.

During a recent study visit to the Forel collection, I found evidence that the *D. mjobergi* type had been returned to Stockholm by Forel, almost certainly in company with the types of 13 other specific, subspecific and infrasubspecific taxa** described in his report on the Mjöberg material (Forel 1915). Several of these taxa were stated by Forel (*loc. cit.*) as being based on "ein Exemplar" or "ein Stuck", suggesting that he retained none of the unique specimens or single pins of specimens originally received from the Swedish Museum.

Subsequent search at Stockholm by Dr. P. I. Persson readily located these 13 types, and resulted also in the rediscovery of the missing *D. mjobergi* type, which had been previously misplaced in the Museum collection.

The results of critical study of this specimen are reported here. It is in fact a member of the genus *Leptogenys*, apparently undescribed elsewhere, but requiring a new specific name due to preoccupation of *mjobergi* in *Leptogenys*.

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†Since "Mjöberg" is a Swedish and not a German name, the procedure laid down in Article 32(c) (i) of the International Code with respect to the German umlaut does not apply, and the spellings "*mjobergi*" and "*mjoebergi*" are both incorrect under the code.

**These taxa, along with *D. mjobergi*, are the only ones of the 137 described in the report which are not represented by type material in the Forel collection. They are listed here to aid future workers in locating type specimens based on the Mjöberg material. Taxa not listed are represented by types (usually syntypes) in Geneva; those listed are apparently represented only in the Stockholm collection. They are: *Myrmecia michaelsoni* r. *queenlandica*, *Cerapachys* (*Phyracaces*) *mjobergi*, *Leptogenys* (*Lobopelta*) *anitae*, *Anochetus rectangularis* v. *diabolus*, *Anochetus turneri* v. *latunei*, *Meranophus mars* r. *ajax*, *Tetramorium* (*Xiphomyrmex*) *sjostedti*, *Pheidole ampla* v. *parviceps*, *Oligomyrmex* (*Ocietella*) *pachycerus*, *Monomorium rubriceps* r. *extremum*, *Polyrhachis* (*Chario-myrrma*) *hookeri* r. *obscura* v. *bellenandensis*, *Polyrhachis* (*Hedomyrrma*) *daemeli* v. *exlex*, *Polyrhachis* (*Campomyrrma*) *sidnica* v. *tambourinensis*.

Leptogenys Roger

Leptogenys Roger, 1861, *Berl. ent. Z.*, 5: 41. Type species: *Leptogenys falcigera* Roger, 1861 (designated by Bingham, 1903).

Dorylozelus Forel, 1915, *Ark. Zool.*, 9(16): 24. **New synonymy.** Type species: *Dorylozelus mjobergi* Forel, 1915 (monobasic).

The new synonymy given above is adequately justified by the discussion to follow.

Dorylozelus carries with it into synonymy the tribal names Dorylozelini Wheeler, 1922 (*Bull. Am. Mus. nat. Hist.*, 45: 646), and Dorylozeli Donisthorpe, 1943 (*Ann. Mag. nat. Hist.*, Ser. 11, 10: 640). I consider that the tribe Leptogenyini of the Emery-Wheeler classification of ants is a spurious taxon, and that its contained genera (with some conceptual and nomenclatural adjustments) should be placed in an expanded tribe Ponerini. Accordingly, I would place the names Leptogenyini, Dorylozelini and Dorylozeli as synonyms of Ponerini.

✓✓ *Leptogenys tricola* Taylor **nom. n.**
(Figs. 1, 2)

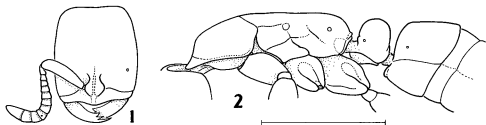
Dorylozelus mjobergi Forel, 1915, *Ark. Zool.*, 9(16): 25, fig. 4, worker. Secondary homonymy by present assignment to *Leptogenys* (nec *Leptogenys mjobergi* Forel, 1915, *ibid.* p. 32, plate 2, fig. 5, worker). Type locality: Blackall (recorded as "Blackal") Range, Queensland.

Dorylozelus mjobergi: Brown, 1960, *Bull. Mus. comp. Zool. Harv.* 122(4): 181.

Holotype.—A unique worker from the Swedish Museum of Natural History collection, Stockholm, bearing the following data: Blackal Range/Queensl. *Mjöberg*./sept. (on 3 printed labels). Two further labels in Forel's handwriting read "*Dorylozelus mjobergi* For ♀ *typus unicus*" and "*novum subgen.*" The significance to Forel of the last label is unknown.

The type locality is undoubtedly the Blackall Range west of Nambour (26°38'S, 152°57'E) in south-east Queensland, and the specimen was probably collected by Mjöberg in 1912 or 1913.

The holotype, which is mounted on a cardboard point, has the left antenna, the right posterior leg, and the apical segments of the left anterior and middle legs detached, but glued to the point; so that a double count of antennal joints can be made, and the pectinate pretarsal claws are visible on at least one leg of each pair.



FIGS. 1, 2.—*Leptogenys tricola* Taylor, n., holotype worker: (1) head, frontal view, left antenna and pilosity omitted; (2) mesosoma and petiole, lateral view. Scale line 1.0 mm.

Description

General features as shown in Figures 1 and 2. Aggregate total length c. 4.0 mm; head length (at dorsal midline) 0.84 mm; maximum head width 0.67 mm; scape length 0.39 mm; pronotum width (across humeri) 0.46 mm; Weber's length of mesosoma 1.25 mm; dorsal petiole width 0.25 mm; petiole height 0.37 mm. Head about $0.8 \times$ as broad as long; sides feebly convex, converging slightly behind; occipital border feebly concave. Eyes barely developed, possibly non-functional; each a single flat, poorly delimited facet almost 0.03 mm in diameter, situated as illustrated. Mandibles strongly curved; each with three strong acute teeth. Antennae 12-segmented; scapes short and thick, somewhat flattened and elliptical in cross section; scape length $0.58 \times$ head width; proportions of funicular segments as in Figure 1.

Mesosomal profile and lateral suturation as in Figure 2. Promesonotal suture finely incised on dorsum, mesometanotal suture lacking. Sides of mesosoma, in dorsal view, almost straight and converging posteriorly, width across narrowest part of propodeum about half that across pronotal humeri. Petiolar node in side view as illustrated; roughly rectangular in dorsal view, slightly longer than broad, anterolateral corners of dorsum more broadly rounded than posterolateral corners. Legs robust, middle and hind coxae notably large, almost as massive as fore coxae or femora; the latter short and strongly inflated (hind femur for example about 0.54 mm long and maximally about 0.24 mm deep). Middle and especially hind coxae with a shallow dorsal longitudinal groove. Middle and hind tibiae each with a short conical, and a longer pectinate spur; all pretarsal claws pectinate.

Almost all body surfaces, including mandibles, antennal scapes and legs smooth and highly lustrous. Frons with a few very scattered piligerous punctures; metapleural areas very finely and indistinctly longitudinally striate. Pilosity sparse, short, erect to sub-erect; fairly generally scattered except on sides of mesosoma; hairs slightly longer on legs and towards gastral apex, longest on clypeus, mandibles, postgenae, and anterior surfaces of fore coxae. Pubescence restricted to antennal funiculi. Colour fairly uniformly medium golden brown.

Discussion

This ant is unmistakably a *Leptogenys*, and it seems incredible that Forel should have been deceived by it. Add to this his poor figure and erroneous description and there is little wonder that *Dorylozelus* should have proved an enigma, in the absence of its type. Among other errors, the original description gave an antennal count of 11 segments, stated that eyes were completely lacking, and failed to mention the pectinate pretarsal claws, so characteristic of *Leptogenys*.

Leptogenys tricola almost certainly belongs with the group of *L. processionalis* (Jerdon), along with two other Australian species, *L. fallax* Mayr. and *L. fortior* Forel. It somewhat resembles these in general habitus and colour, but it is much smaller, and has very different mandibles. The Oriental species *L. myops* Emery and *L. crassicornis* Emery seem close to *L. tricola*, judging from their original descriptions.

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